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**Spears et al.**

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[54] **METHOD FOR ANGIOPLASTY**

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[\*] **Notice:** The portion of the term of this patent  
subsequent to Jan. 24, 2006 has been  
disclaimed.

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**Related U.S. Application Data**

[63] Continuation of Ser. No. 561,360, Jul. 31, 1990, Pat.  
No. 5,019,075, which is a continuation of Ser. No.  
225,969, Jul. 29, 1988, abandoned, which is a contin-  
uation of Ser. No. 4,780, Jan. 8, 1987, Pat. No. 4,799,479,  
which is a continuation of Ser. No. 664,156, Oct. 24,  
1984, abandoned.

[51] **Int. Cl.<sup>5</sup>** ..... **A61M 29/02**

[52] **U.S. Cl.** ..... **128/898; 606/7;**  
**606/15; 606/28; 606/194; 128/401**

[58] **Field of Search** ..... **606/7, 15, 28, 194,**  
**606/14, 27, 192, 194, 162; 128/401, 898; 604/96**

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[57] **ABSTRACT**

The region surrounding the balloon utilized in percu-  
taneous transluminal coronary angioplasty is heated by  
means within the balloon or within the skin of the bal-  
loon upon inflation of the balloon such that disrupted  
tissues of the plaque in the arterial wall are heated in  
order to fuse together fragmented segments of tissue  
and to coagulate blood trapped within dissected planes  
of tissue and within fissures created by wall fracture  
such that upon subsequent balloon deflation a smooth  
cylindrically-shaped channel results, thereby to prevent  
collapse of any flap of material which could cause either  
abrupt arterial closure and an acute myocardial infarction  
or gradual restenosis at the site of balloon inflation.

**7 Claims, 6 Drawing Sheets**

